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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,199	11/28/2001	James A. Davis	B-4258CIP 619319-4	4019

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EXAMINER

MOISE, EMMANUEL LIONEL

ART UNIT	PAPER NUMBER
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2136

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/997,199

Applicant(s)

CHEN, CHANG-SHUN

Examiner

Emmanuel L. Moise

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

1. This Office action is responsive to Applicant's amendment filed on August 2, 2004.

Claims 4-19 are pending. Claims 1-3 and 20-21 have been canceled.

2. After further review of the claims and the prior art, it is noted that all pending claims should have been rejected under the doctrine of obviousness double patenting. After further review, it is also noted that Aichelmann (U.S. Patent No. 4,458,349) anticipates all the pending claims. The oversight is regretted.

***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 4-19 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over currently pending claims 1-6, 11-12, 21-26 and 32-34 of copending Application No. 09/915,719. Although the conflicting claims are not identical, they are not patentably distinct from each other because the difference between the invention claimed in the present case and the parent is such that one of ordinary skill in the art would have implemented the claimed invention based on the teachings of the parent case.

Both, the present and the parent applications claim a method of controlling, or testing a

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magnetoresistive solid state storage device, comprising the steps of accessing a set of the storage cells, and determining whether information is unrecoverable from a block of ECC encoded data or whether the accessed set of storage cell is suitable for storing at least one block of ECC encoded data.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 4-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Aichelmann (U.S. Patent No. 4,458,349).

As per claim 4, Aichelmann teaches the claimed method for testing a magnetoresistive solid-state storage device, the method comprising:

accessing a set of magnetoresistive storage cells, the set being arranged in use to store at least one block of ECC encoded data (column 4, lines 18-31);

determining whether the accessed set of storage cells is suitable for, in use, storing at least one block of ECC encoded data (column 4, lines 41-65); and

determining, from accessing the set of storage cells, one or more failed cells, determining the position of the identified failed cells, and from this determining one or more symbols of ECC

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encoded data which, in use, would be affected by failed cells in those positions (column 4, lines 53-57).

As per claim 5, Aichelmann teaches the step of determining whether there would be more failed symbols in a block of ECC encoded data than could be reliably corrected by, in use, error correction decoding the block of ECC encoded data (column 4, lines 27-33).

As per claim 6, Aichelmann teaches the claimed method for testing a magnetoresistive solid-state storage device, the method comprising:

accessing a set of magnetoresistive storage cells, the set being arranged in use to store at least one block of ECC encoded data (column 4, lines 18-31);

determining whether the accessed set of storage cells is suitable for, in use, storing at least one block of ECC encoded data (column 4, lines 41-65);

obtaining a parametric value for each of the set of storage cells; comparing each parametric value against a range or ranges (column 4, lines 53-57); and

identifying failed cell or cells, amongst the set of storage cells, as being affected by a physical failure, where the parametric value falls into one or more failure ranges (column 2, lines 59-63).

As per the step of “comparing each parametric value against a range or ranges,” this limitation is well within the scope of Aichelmann’s invention since a person of ordinary skill in the art understands that a threshold value, in this situation, can be either a fixed value or a range or ranges of values.

As per claims 6-10, the claimed invention is well within the scope of Aichelmann’s method/system.

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As per claim 11, choosing the threshold value to be “in the range of about 50% to about 95% of the maximum number of failed symbols which could be reliably corrected by error correction decoding the block of ECC encoded data” is well within the scope of Aichelmann’s invention since a person of ordinary skill in the art understands that a threshold value, in this situation, can be either a fixed value or any desired range of values.


Claims 12-19, due to their similarities to claims 6-11, are rejected for reasons similar to those set forth against claims 6-11.

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel L. Moise whose telephone number is (571)272-3865. The examiner can normally be reached on M-W (9:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Ayaz R. Sheikh can be reached on (571)272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Emmanuel L. Moise  
Primary Examiner  
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